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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ALAM, SHAHID AL

ART UNIT PAPER NUMBER

2162

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,949

Applicant(s)

ROSSITER ET AL.

Examiner

Shahid Al Alam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11, 16 - 26 and 31 - 34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 11, 16 - 26 and 31 - 34 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02072005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1 – 11, 16 – 26 and 31 – 34 are pending in this Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 – 3, 5 – 11, 16 – 18, 20 – 26 and 31 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,606,693 issued to Kenneth Nilsen et al. (“Nilsen”) and in view of U.S. Patent Number 5,838,918 issued to Neal Prager et al. (“Prager”).

With respect to claims 1 and 16, Nilsen teaches a database appliance, comprising: a database server; and an operating system, generated by modifying a general purpose operating system, whose configuration is dictated based on a set of services required by the database server (see abstract, column 2, lines 15 – 35).

Nilsen does not explicitly teach the special purpose operating system is the only operating system installed on and executed by the database appliance as claimed.

Prager discloses claimed special purpose operating system and the only operating system installed on and executed by the database appliance (Prager discloses a similar system, such as UNIX operating system. Rdist implements a simple file distribution mechanism. See column 3, lines 55 – 65 and see Table 1, lines 30 – 40).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Prager with Nilsen to increase the ease and efficiency of the configuration management task in large, complex, distributed networks of heterogeneous computer systems (see column 4, lines 59 – 62).

As to claims 2 and 17, the database server was generated from another database server by modifying the code of the other database server to optimize the code for execution on said database appliance (Nilsen: column 3, lines 60 – 65).

As to claims 3 and 18, the hardware for said database appliance is selected and configured to optimize performance of one or more services to be performed by the database server (Nilsen: column 3, lines 60 – 65).

As to claims 5 and 20, the database server is a special purpose database server, wherein features and configuration of the special purpose operating system are dictated

by the special purpose database server and supporting components (Nilsen: column 3, lines 60 – 65), and wherein the special purpose database server is specially adapted based upon the services required by a specific type of database usage (Nilsen: column 2, lines 15 – 35).

As to claims 6 and 21, the special purpose operating system performs process scheduling based on shares of CPU time (see abstract; Nilsen).

As to claims 7 and 22, a self-configuration module that is capable of performing the steps of detecting an environment in which the database appliance is being used; and configuring the database appliance based upon the detected environment (Nilsen: column 3, lines 60 – 65).

As to claims 8 and 23, the special purpose operating system employs a microkernel and an associated service module (Nilsen: column 3, lines 43 – 60).

With respect to claims 9 and 24, Nilsen does not explicitly teach the database server includes a mechanism for reading resource information within an address space of a kernel of the operating system without causing a context switch to the operating system kernel address space as claimed.

Prager discloses claimed database server that includes a mechanism for reading resource information within an address space of a kernel of the operating system without causing a context switch to the operating system kernel address space (column 9, lines 28 – 38).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Prager with Nilsen to increase the ease and efficiency of the

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configuration management task in large, complex, distributed networks of heterogeneous computer systems (column 4, lines 60 – 62; Prager). It would have been obvious to a person of ordinary skill in the art to switch the context and yet not make a change to the central configuration database because of the code reusability of Prager (column 9, lines 28 – 38).

With respect to claims 10, 11, 25 and 26, Nilsen teaches database appliance is configured with an amount of resources dedicated to computational services that is based upon whether said specific type of database usage is an online transaction processing application (column 3, lines 60 – 65; Nilsen).

Nilsen does not explicitly indicate that the database application is a OLTP and that the configuration is done by dedicating more resources to I/O services.

Prager teaches a configuration database similar to the one of Nilsen (Figure 8, Item 400) and that the database application is a OLTP and that the configuration is done by dedicating more resources to I/O services (column 3, lines 60 – 65; Nilsen).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Prager with Nilsen to increase the ease and efficiency of the configuration management task in large, complex, distributed networks of heterogeneous computer systems (column 4, lines 60 – 62; Prager). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Prager with Nilsen because the performance of the combined system would have improved because of the code reusability of Prager.

With respect to claims 31 – 34, the step of modifying the general purpose operating system includes adding or removing one or more features to the general purpose operating system, and wherein the one or more features are used to provide said set of services to the database server (in addition to claims 1 and 16, see Table 1, lines 40 – 50 of Prager).

3. Claims 4 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsen as applied to claim 1 above, and further in view of U.S. Patent Number 5,627,994 issued to Hanoch Levy et al. (“Levy”).

With respect to claims 4 and 19, Nilsen and Prager disclosed a database appliance, comprising: a database server; and a special purpose operating system, generated by modifying a general purpose operating system, whose configuration is dictated based on a set of services required by the database server and further teaches the hardware for said database appliance selection and configuration as discussed above.

Nilsen does not explicitly teach to optimize a cache-hit ratio experienced by the database appliance as claimed.

Levy discloses claimed optimization of a cache-hit ratio experienced by the database appliance (see abstract, column 5, lines 6 – 18, 47 – 55).


It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Levy with Nilsen to provide a method for allocating request streams and memory resources to a cache architecture, in such a way as demonstrably to improve or to optimize system performance, as measured by the hit ratio.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shahid Al Alam
Primary Examiner
Art Unit 2162

8 July 2005